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United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 <u>et seq.</u>, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act", the

FMC Corporation Phosphorus Chemicals Division

is authorized to discharge from a facility located at **Pocatello, Idaho** (latitude: 42E 54=44"; longitude: 112E 31=10")

to receiving waters named Portneuf River,

in accordance with the discharge point, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective [date]

This permit and the authorization to discharge shall expire at midnight, [date]

Signed this [day] day of [month, year].

Director, Office of Water, Region 10 U.S. Environmental Protection Agency

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I. EFFLUENT LIMITATIONS

A. During the effective period of this permit, the permittee is authorized to discharge from outfall 001, subject to the restrictions set forth herein. This permit does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of the facility as disclosed in the permit application, or any pollutants that are not ordinarily present in such waste streams.

- B. There shall be no discharge of floating solids, visible foam, or oily wastes which produce a sheen on the surface of the receiving water.
- C. The discharge of chemicals in toxic amounts is prohibited pursuant to Section 101(a)(3) of the CWA and the Idaho water quality standards (IDAPA 16.01.02.200.02), which prohibits the discharge of toxic pollutants in toxic amounts.

D. The following effluent limits shall apply at all times:

TABLE I-1: EFFLUENT LIMITATIONS							
Effluent Parameter	Unit of Measurement	Average Monthly	Maximum Daily	Instantaneous Maximum	Minimum Daily		
Ammonia total (as NI)1	μg/L	200	390				
Ammonia, total (as N) ¹	lbs/day	5.0	10.1				
Aragnia (Ag) total	μg/L	407	816				
Arsenic (As), total ¹	lbs/day	10.4	20.9				
Poron (P) total1	mg/L	13.6	27.3				
Boron (B), total ¹	lbs/day	350	700				
Cadesium (Cd) tatal1	μg/L	1.48	2.96				
Cadmium (Cd), total ¹	lbs/day	0.04	0.08				
0-22-27 (0-1) 1-1-11	μg/L	17.2	34.5				
Copper (Cu), total ¹	lbs/day	0.44	0.88				
Cuanida (MAD)1	μg/L	11.4	22.9				
Cyanide (WAD) ¹	lbs/day	0.29	0.59				
Dissolved Oxygen	mg/L				6.0		
	mg/L	0.1	0.2				
Fluoride (F), total ¹	lbs/day	2.6	5.2				
Gross Alpha Radiation ¹	pCi/L	15	30				

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TABLE I-1: EFFLUENT LIMITATIONS							
Effluent Parameter	Unit of Measurement	Average Monthly	Maximum Daily	Instantaneous Maximum	Minimum Daily		
Marray (Ha) total	ng/L	10	19				
Mercury (Hg), total ¹	lbs/day	0.0003	0.0005				
Orthophophoto on D1	μg/L	41	82				
Orthophosphate as P ¹	lbs/day	1.1	2.1				
рН	s.u.		9.0		6.5		
Phosphorus, elemental (P4) ¹	μg/L			0			
Phosphorus, total as P ¹	μg/L	70	184				
Phosphorus, lotal as F	lbs/day	1.2	3.0				
Radium-226 + Radium-2281	pCi/L	5	10				
Onlandium (Co) total1	μg/L	4 ²	8				
Selenium (Se), total ¹	lbs/day	0.1	0.2				
Cilver (Ag) total	μg/L	15	30				
Silver (Ag), total ¹	lbs/day	0.4	0.8				
Temperature ³	EC		9	13			
(Apr 1 - Jul 31)	BTU/day		0				
Temperature ³	EC		19	23			
(Aug 1 - Sep 30)	BTU/day		3.8x10 ⁸				
Temperature ³	EC		17	17			
(Oct 1 - Mar 31)	BTU/day		6.5x10 ⁸				
TI - 10: (TI) 4-4-11	μg/L	185	371				
Thallium (TI), total ¹	lbs/day	4.7	9.5				
7 /7-V (-1-11	μg/L	223	448				
Zinc (Zn), total ¹	lbs/day	5.7	11.5				

Reporting to EPA and the local district health office is required within 24-hours if the maximum daily limit is

violated.
Shall be below quantification level (ML) prior to discharge based upon the EPA approved method 270.2. Final compliance evaluation limit is $5 \mu g/L$ (0.1 lbs/day). Thermal loading shall be computed using the following formula:

[[]flow (gal/day)]x[8.345 (lb/gal)]x[effluent temperature (EF) - receiving water temperature (EF)] [flow (gal/day)]x[8.345 (lb/gal)]x[effluent temperature (EC) - receiving water temperature (EC)]x1.8

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II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS

- A. Monitoring Requirements.
 - 1. Effluent Monitoring Requirements.
 - a. During the effective period of this permit, the following monitoring requirements shall apply:

TABLE II-1: EFFLUENT MONITORING REQUIREMENTS					
Effluent Parameter	Units	Sample Frequency	Sample Type		
Ammonia as N, total	μg/L	1/week	24-hour composite		
Arsenic (As), total	μg/L	1/week	24-hour composite		
Boron (B), total	mg/L	1/week	24-hour composite		
Cadmium (Cd), total	μg/L	1/week	24-hour composite		
Chlorine, total residual ¹	μg/L	1/week	grab		
Chromium (Cr), total	μg/L	1/week	24-hour composite		
Chemical Oxygen Demand	mg/L	1/week	24-hour composite		
Copper (Cu), total	μg/L	1/week	24-hour composite		
Cyanide (WAD)	μg/L	1/week	grab		
Dissolved Oxygen	mg/L	1/week	grab		
Elemental Phosphorus (P ₄)	μg/L	1/week	grab		
Flow	mgd	continuous	recording		
Fluoride (F), total	mg/L	1/week	24-hour composite		
Gross Alpha Radiation	pCi/L	1/week	grab		
Hardness as CaCO ₃	mg/L	1/week	24-hour composite		
Mercury (Hg), total	ng/L	1/week	24-hour composite		
Nitrate+Nitrite as N	mg/L	1/week	24-hour composite		
Oil and Grease	mg/L	1/week	grab		
Orthophosphate (PO ₄) as P	μg/L	1/week	24-hour composite		
рН	s.u.	1/week	grab		
Phenols	mg/L	1/week	grab		
Phosphorus, total as P	μg/L	1/week	24-hour composite		
Radium-226 + Radium-228	pCi/L	1/week	grab		
Selenium (Se), total	μg/L	1/week	24-hour composite		
Silver (Ag), total	μg/L	1/week	24-hour composite		
Temperature	EC	continuous	recording		
Thallium (TI), total	μg/L	1/week	24-hour composite		
Whole Effluent Toxicity, chronic	TU₀	1/quarter ²	24-hour composite		
Zinc (Zn), total	μg/L	1/week	24-hour composite		

¹ Monitoring shall be conducted in the field using field laboratory test kits.

² If, after one year of testing, the maximum measured toxicity is less than or equal to the chronic toxicity trigger specified in paragraph I.B.1, then the permittee is only required to conduct quarterly sampling in the fourth year.

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b. Effluent Sample Location. Effluent samples shall be collected after the last treatment unit prior to discharge. The permittee may sample at the effluent pump house as an alternate monitoring location.

- 2. Internal Waste Stream Monitoring Requirements.
 - a. During the effective period of this permit, the following monitoring requirements shall apply:

TABLE II-2: INTERNAL WASTE STREAM MONITORING REQUIREMENTS						
Effluent Parameter	Units	Sample Frequency	Sample Type			
Arsenic (As), total	μg/L	1/week	grab			
Boron (B), total	mg/L	1/week	grab			
Cadmium (Cd), total	μg/L	1/week	grab			
Chromium (Cr), total	μg/L	1/week	grab			
Copper (Cu), total	μg/L	1/week	grab			
Flow	mgd	1/week	grab			
Hardness as CaCO ₃	mg/L	1/week	grab			
рН	s.u.	1/week	grab			
Selenium (Se), total	μg/L	1/week	grab			
Silver (Ag), total	μg/L	1/week	grab			
Thallium (TI), total	μg/L	1/week	grab			
Zinc (Zn), total	μg/L	1/week	grab			

b. Internal Waste Stream Sample Location. Internal waste stream samples shall be collected for the discharge of wastewater from the boiler blowdown system as indicated on Figure II-1.

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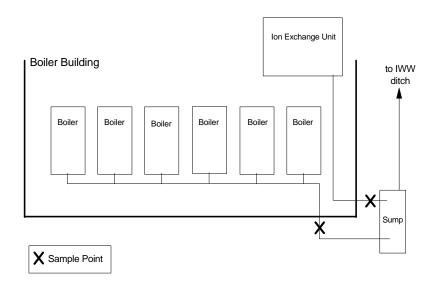


Figure II-1. Discharge monitoring location for internal waste stream monitoring of the boiler blowdown system.

- 3. Effluent Triggers. Special requirements for WET and elemental phosphorus are initiated as follows:
 - a. Chronic Toxicity Effluent Trigger.
 - (1) The trigger for this pollutant shall occur when the reported toxicity level (NOEC/IC25) is greater than 1.0 TUc.
 - (2) Within fifteen (15) days of receipt of the sample results that indicate an exceedance of the chronic toxicity trigger:
 - (a) If the source of toxicity is known (e.g., temporary plant upset), then the permittee is required to perform one additional test. If toxicity persists, then the permittee is required to follow the steps prescribed in the facility's TRE Work Plan.
 - (b) If the source of toxicity is unknown, then the permittee is required to follow the steps prescribed in the facility's TRE Work Plan.
 - (c) Notify the Director, IDEQ, the local district health office, and the Shoshone-Bannock Tribes in accordance with WET Reporting Requirements (Section II.C.2).

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b. Elemental Phosphorus (P4) Effluent Trigger.

- (1) The trigger for this pollutant shall occur when the reported level in the effluent exceeds $0.1 \mu g/L$.
- (2) Immediately upon receipt of the sample results that indicate an exceedance of the trigger for this pollutant, the permittee shall:
 - (a) Perform daily samples until the sample results no longer exceed the trigger level.
 - (b) Notify the Director, IDEQ, the local district health office, and the Shoshone-Bannock Tribes in accordance with Elemental Phosphorus (P4) Reporting Requirements (Section II.C.3).
- 4. Ambient Monitoring Requirements.
 - a. During the effective period of this permit, the permittee shall conduct monitoring upstream and downstream of outfall 001.

 Ambient monitoring shall occur midstream at the following locations:
 - (1) Upstream Monitoring Location. The upstream monitoring shall be conducted approximately 150 feet upstream of the outfall near the abandoned agriculture irrigation pump located on the east side of the river.
 - (2) Downstream Monitoring Location. The downstream monitoring shall be conducted under the east bound crossing of I-86.

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b. During the effective period of this permit, the following ambient monitoring requirements shall apply:

TABLE II-3: AMBIENT MONITORING REQUIREMENTS					
Effluent Parameter	Units	Sample Frequency	Sample Location	Sample Type	
Ammonia, total as N	μg/L	1/month	upstream & downstream	grab	
Arsenic (As), dissolved	mg/L	1/month	upstream & downstream	grab	
Boron (B), total	mg/L	1/month	upstream & downstream	grab	
Cadmium (Cd), dissolved	μg/L	1/month	upstream & downstream	grab	
Chlorine, total residual ¹	μg/L	1/week	upstream	grab	
Chromium (Cr), dissolved	μg/L	1/month	upstream	grab	
Chemical Oxygen Demand	mg/L	1/month	upstream & downstream	grab	
Copper (Cu), dissolved	μg/L	1/month	upstream & downstream	grab	
Dissolved Oxygen	mg/L	1/month	upstream & downstream	grab	
Flow	mgd	1/week	upstream	grab	
Fluoride (F), total	mg/L	1/month	upstream & downstream	grab	
Gross Alpha Radiation	pCi/L	1/month	upstream	grab	
Hardness as CaCO ₃	mg/L	1/month	upstream	grab	
Mercury (Hg), dissolved	ng/L	1/month	upstream & downstream	grab	
Nitrate+Nitrite as N	mg/L	1/month	upstream & downstream	grab	
Orthophosphate (PO ₄) as P	μg/L	1/month	upstream & downstream	grab	
рН	s.u.	1/month	upstream & downstream	grab	
Phosphorus, total as P	μg/L	1/month	upstream & downstream	grab	
Radium-226 + Radium-228	pCi/L	1/month	upstream	grab	
Selenium (Se), total	μg/L	1/month	upstream & downstream	grab	
Silver (Ag), dissolved	μg/L	1/month	upstream & downstream	grab	
Temperature ²	EC	1/week	upstream & downstream	grab	
Thallium (TI), dissolved	μg/L	1/month	upstream & downstream	grab	
Zinc (Zn), dissolved	μg/L	1/month	upstream & downstream	grab	

¹ Monitoring shall be conducted in the field using field laboratory test kits.

c. Ambient monitoring activities shall occur within the same 24-hour period as effluent monitoring activities.

² Monitoring shall occur during the warmest part of the day on the same calendar date as effluent monitoring.

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5. Sediment Monitoring Requirements.

a. During the effective period of this permit, the following monitoring requirements shall apply:

TABLE II-4: SEDIMENT MONITORING REQUIREMENTS						
Effluent Parameter	Units	Sample Frequency	Sample Location	Sample Type		
Cadmium, total	μg/L	1/month	A, B & C	grab		
Mercury, total	ng/L	1/month	A, B & C	grab		
Selenium, total	μg/L	1/month	A, B & C	grab		

b. Sediment samples shall be collected at the points indicated on Figure II-2.

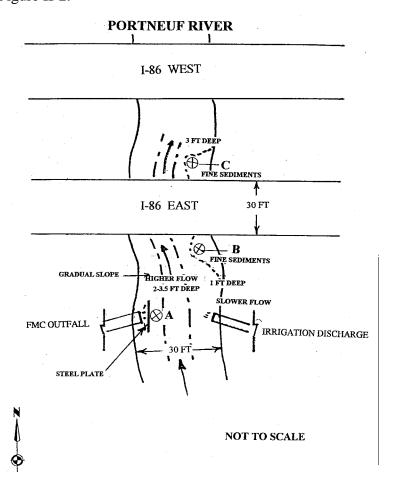


Figure II-2. Sediment Monitoring Locations.

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- 6. Other Monitoring Requirements.
 - a. Samples and measurements shall be representative of the volume and nature of the monitored discharge.
 - b. Monitoring must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this permit.
 - c. Test Methods.
 - (1) When conducting water column monitoring, the permittee shall use the following analytical methods, method detection limits (MDLs), and minimum levels (MLs):

TABLE II-5: ANALYTICAL TESTING REQUIREMENTS						
Effluent Parameter	Method	Units	MDL	ML or RL		
Ammonia	350.1	μg/L		10		
Arsenic	200.7	μg/L	8	20		
Boron	200.7	μg/L	3	10		
Cadmium	213.2	μg/L		0.5		
Chlorine	330.4	mg/L		0.1		
Chromium, total	200.7	μg/L	4	10		
COD	410.2	mg/L		5		
Copper	200.7	μg/L	3	10		
Cyanide (WAD)	OIA-1677	μg/L	0.5	1.6		
Dissolved Oxygen	361.1 or 360.2	μg/L		50		
Fluoride	340.1 or 340.2	mg/L		0.1		
Hardness	130.1	mg/L		10		
Mercury	1631 Rev. B	ng/L		0.5		
Nitrate+Nitrite	353.1 or 353.3	μg/L		10		
Orthophosphate	365.1, 365.2 or 365.3	μg/L		10		
Oil & Grease	413.1	mg/L		5		
Phenols	420.2	μg/L		2		
Phosphorus, total	365.1, 365.2, 365.3 or 365.4	μg/L		10		
Selenium	270.2	μg/L	2	5		
Silver	272.2	μg/L	0.2	1		
Thallium	200.7	μg/L	20	50		
Zinc	200.7	μg/L	2	5		

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(2) When conducting sediment monitoring, the following method detection levels (MDLs) shall be achieved:

TABLE II-6: SEDIMENT TESTING REQUIREMENTS						
Effluent Parameter	Method	Units	MDL			
Cadmium	SW846 7131A	mg/kg	0.1			
Mercury	SW846 7471A	mg/kg	0.01			
Selenium	SW846 7740	mg/kg	1.0			

- d. WET test requirements.
 - (1) Test Species.
 - (a) The permittee shall conduct tests with the following species: cladoceran, water flea (*Ceriodaphnia dubia*) survival and growth;
 - (b) During the fourth year of the permit, the permittee shall conduct tests with the following species: fathead minnow (*Pimphales promelas*) survival and growth cladoceran, water flea (*Ceriodaphnia dubia*) survival and growth.
 - (2) The presence of chronic WET toxicity shall be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Third Edition, Eds., Lewis P.A., D.J. Klemn, J.M. Lazorchak, T.J. Norberg-King, W.H. Peltier, and M.A. Herber (EPA/600/4-91/002).
 - (3) If two tested concentrations cause statistically adverse effects in the calculation of the NOEC but an intermediate concentration did not cause statistically significant effects, then the test should be repeated or the lowest concentration must be used.

For example: 6.25, 12.5, 25, 50 and 100% effluent concentrations are tested. The 12.5 and 50% concentrations are statistically significant, but 25% is not significant. If the test is not repeated, then 6.25% must be reported as the NOEC.

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(4) A series of at least five dilutions and a control shall be tested. The series shall include the receiving water concentration (RWC), two dilutions above the RWC, and two dilutions below the RWC. The expected RWC is 1.0 TUc.

- (5) Organisms shall not be not cultured in-house. Concurrent testing with a reference toxicant shall be conducted by the laboratory conducting the toxicity analysis.¹
- (6) If either the reference toxicant test or the effluent tests do not meet all test acceptability criteria (TAC) as specified in the test methods manuals, then the permittee must resample and retest as soon as possible.
- (7) Control and dilution water should be receiving water or laboratory water, as specified in the test methods manuals. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.
- (8) Chemical testing for the parameters for effluent monitoring (See Table II-1) shall be performed on a split of each sample collected for whole effluent toxicity (WET) testing. To the extent that the timing of sample collection coincides with that of the sampling required in Effluent Monitoring Requirements of this permit, chemical analysis of the split sample will fulfill the requirements of that Part as well.

1

Reference toxicants shall also be conducted using the same test conditions as the effluent toxicity tests (e.g., the same test duration). In no case shall water that has not met test acceptability criteria be used for either dilution or control.

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- B. Recording Requirements.
 - 1. Records Contents. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements,
 - b. The individual(s) who performed the sampling or measurements,
 - c. The date(s) analyses were performed,
 - d. The individual(s) who performed the analyses,
 - e. The analytical techniques or methods used, and
 - f. The results of such analyses.
 - 2. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time. Data collected on-site, copies of DMRs, and a copy of this NPDES permit must be maintained on-site during the duration of activity at the permitted location.
- C. Reporting Requirements.
 - 1. Effluent Reporting Requirements.
 - a. Monitoring results greater than the minimum detection level (MDL) shall be reported as the actual value measured and monitoring results less than the MDL shall be reported as "<[MDL value]."
 - Monitoring results shall be summarized each month on the
 Discharge Monitoring Report (DMR) form (EPA No. 3320-1).

 The reports shall be submitted monthly and are to be postmarked by the 10th day of the following month.

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c. A copy of the laboratory analytical report, that includes the analysis and QA/QC, for all samples shall be submitted with the monthly DMR.

- 2. Whole Effluent Toxicity Reporting Requirements.
 - a. The permittee shall submit a full toxicity report with the DMR for the last month in a quarter. The full toxicity report shall consist of:
 - (1) the toxicity test results;
 - (2) the dates of sample collection and initiation of each toxicity test;
 - (3) the toxicity trigger for the facility (see Chronic Toxicity Effluent Trigger in Section II.A.3.a.);
 - (4) the type of activity occurring (e.g., secondary treatment of domestic sewage);
 - (5) the flow rate at the time of sample collection; and
 - (6) the chemical parameter monitoring required for the outfall as defined in Table II-1 of the permit.
 - b. Test results for chronic tests shall be reported according to the Report Preparation chapter in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/600/4-91/002).
 - c. Exceedance of the toxicity trigger shall be reported to the Director, IDEQ, and the Shoshone-Bannock Tribes, in writing, within fifteen (15) days of receipt of toxicity testing results. The report shall include, as a minimum, the following information:
 - (1) A description of the actions the permittee has taken or will take to investigate and correct the cause(s) of toxicity in accordance with the TRE Work Plan;
 - (2) A status report on any actions required by the permit, with a schedule for actions not yet completed; and
 - (3) Where no actions have been taken, include the reasons for not taking action.
- 3. Elemental Phosphorus (P4) Reporting Requirements. Exceedance of the trigger shall be reported to the Director, IDEQ, the local health district (Bannock County Office, 233-9080), and the Shoshone-Bannock Tribes by telephone, within 24 hours, and in writing, within fifteen (15) days, of

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receipt of testing results. The written report shall include, as a minimum, the following information:

a. A description of the cause for the exceedance, if known;

- b. A description of the actions the permittee has taken or will take to investigate and correct the cause(s);
- c. A status report on any actions taken, with a schedule for actions not yet completed; and
- d. Where no actions have been taken, include the reasons for not taking action.
- 4. Submittal of Monitoring Results and Reports. Legible copies of the DMR, the laboratory analytical reports, and all other reports shall be signed and certified in accordance with the Signatory Requirements of this permit, and submitted to the following:

original to: United States Environmental Protection Agency (EPA)

Region 10

NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

copy to: Idaho Division of Environmental Qualtiy

Pocatello Regional Office

224 South Arthur

Pocatello, Idaho 83204

(208)236-6167

The Shoshone-Bannock Tribes Fort Hall Indian Reservation Land Use Department

P.O. Box 306

Fort Hall, Idaho 83203

(208)238-3733

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5. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or as specified in this permit, the results of that monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated.

- 6. Twenty-four Hour Notice of Noncompliance Reporting.
 - a. The following occurrences of noncompliance shall be reported to the Director, IDEQ, the local health district (Bannock County Office, 233-9080), and the Shoshone-Bannock Tribes by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
 - (1) any unanticipated bypass which exceeds any effluent limitation in the permit (See Bypass of Treatment Facilities in Section IV.A.8.),
 - (2) any upset which exceeds any effluent limitation in the permit (See Upset Conditions in Section IV.A.9.), or
 - (3) violation of a maximum daily discharge limitation for those toxic or hazardous pollutants identified within Table I-1.
 - b. A written submission shall also be provided to the Director, IDEQ, and the Shoshone-Bannock Tribes within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - (1) a description of the noncompliance and its cause,
 - (2) the period of noncompliance, including exact dates and times,
 - (3) the estimated time noncompliance is expected to continue if it has not been corrected,
 - (4) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance, and
 - (5) date noncompliance was corrected and measures taken to prevent future conditions of noncompliance.
 - c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. IDEQ and the Shoshone-Bannock Tribes shall be notified immediately if the Director grants a waiver.

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d. Reports shall be submitted to the addresses sited in Submittal of Monitoring Results and Reports.

7. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported in the monthly monitoring reports. The report shall contain the information listed in paragraph II.C.6.b.

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III. SPECIAL CONDITIONS

A. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit, shall be submitted no later than ten days following each schedule date.

[reserved]

- B. Quality Assurance Requirements.
 - 1. Within 90 days of the effective date of this permit, the permittee shall develop and submit a Quality Assurance Project Plan (QAPP) to the Director, IDEQ, and the Shoshone-Bannock Tribes.
 - note: The document *Guidance for Preparation of Quality Assurance Project Plans*, EPA, Region 10, Quality and Data Management Program, QA/G-5, can be used as a helpful reference guide in preparing the QAPP. This document is available as an Adobe Acrobat file at http://www.epa.gov/r10earth/offices/oea/qaindex.htm.
 - 2. At a minimum, the following information shall be provided in the QAPP:
 - a. Sample location (map and physical description) and frequency;
 - b. Sample handling procedures;
 - c. Parameters, test methods, and detection limits;
 - d. Number of QC samples, spikes and replicates required for analysis (for precision accuracy);
 - e. Documentation requirements for the laboratory (i.e., retention time, QA/QC procedures for test methods, volume of sample collected, field test blanks, etc.);
 - f. Organizational responsibilities who is responsible for QA/QC activities (i.e., who takes samples, who reviews the data analysis, etc.); and
 - g. Name(s), address(es), and phone number(s) of laboratories used or proposed to be used by the permittee.

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3. The permittee must correct or address any comments submitted by the Director, IDEQ, or the Shoshone-Bannock Tribes prior to EPA approval of the plan. If no comments are received within 60 days of the submittal date, then the plan will be considered acceptable as submitted.

- 4. The permittee is responsible for reviewing and updating the approved QAPP is to ensure all material is current and applicable.
- 5. The permittee shall amend the QAPP whenever there is a modification in the sample collection, sample analysis, or conditions or requirements of the QAPP change.
- 6. Copies of the QAPP shall be kept on site and shall be made available to the Director, IDEQ, and the Shoshone-Bannock Tribes upon request.
- C. Best Management Practices (BMP) Requirements.
 - 1. Within 180 days of the effective date of this permit, the permittee shall develop and implement a Best Management Practices (BMP) Plan. A copy of the BMP Plan shall be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes.
 - 2. The BMP Plan shall be consistent with the following objectives for the control of pollutants:
 - a. Prevent or minimize the release of pollutants from the facility to the Portneuf River;
 - b. Ensure proper operation and maintenance of the facility;
 - c. Identify potential sources of pollutants at the facility;
 - d. Identify pollution prevention measures and controls appropriate for the facility;
 - e. Ensure proper management of solid and hazardous waste in accordance with regulations promulgated under the Resource Conservation and Recovery Act (RCRA);
 - f. Reflect requirements for Spill Prevention, Control, and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 112; and

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g. Reflect requirements for stormwater control under Section 402(p) of the Act and the regulations at 40 CFR 122.44.

- 3. The BMP Plan shall be consistent with the general guidance contained in the publications entitled *Guidance Manual for Developing Best Management Practices (BMPs)* (USEPA, 1993) and *Storm Water Management for Industrial Activities* (USEPA, 1992) or any subsequent revisions. The BMP Plan shall contain, as a minimum, the following information:
 - a. Statement that the Plan has been reviewed and fulfulls the requirements set forth in this permit. The statement shall be certified by the dated signatures of a Plant Engineering representative and the Plant Manager.
 - b. Name and location of facility.
 - c. Statement of BMP policy.
 - d. Structure, functions, and procedures of the BMP review.
 - e. Specific management practices and standard operating procedures to achieve BMP objectives including, but not limited to, the following:
 - (1) equipment maintenance and replacement;
 - (2) materials handling;
 - (3) operational phases (e.g., startup procedures) for each system;
 - (4) a description of each waste stream produced at the facility, including the type and quantity of pollutants; and
 - (5) a diagram showing the management of wastewater systems;
 - f. Risk identification and assessment.
 - (1) Each component or system shall be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to the Portneuf River due to equipment failure, improper operation, and natural phenomena such as rain or snowfall, etc. The examination shall include all normal operations and ancillary activities including material storage areas, plant

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site runoff, in-plant transfer, process and material handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.

- (2) Prediction of direction, rate of flow, and quantity of pollutants which could be discharged to the Portneuf River as a result of equipment failure (e.g., tank overflow or leakage, shutdown of cooling fountain), natural condition (e.g., precipitation runoff from ore or slag piles), or other circumstances that indicates reasonable potential for an unauthorized discharge.
- g. Specific BMPs or other measures which ensure that the following specific requirements are met:
 - (1) Ensure that berms, including any pond walls, ditches, dikes, dams and similar water retention structures shall be constructed in a manner such that they reject the passage of storm water.
 - (2) Ensure that all water control devices including, but not limited to, structures and berms, and all solids retention structures, such as berms, dikes, pond structures and dams, shall be maintained to continue their effectiveness and to protect from unexpected and catastrophic failure.
 - (3) Ensure that all storm water, including snow melt runoff, at the facility is diverted and/or collected such that it does not discharge to the Portneuf River.
 - (4) Prevent or minimize fugitive dust emissions from coal and ore handling areas. At a minimum, the facility shall employ oil/water spraying (or its equivalent) of coal and ore piles to prevent fugitive dust emissions. The facility shall establish procedures to minimize off-site tracking of coal and ore dust. To prevent off-site tracking, the facility may consider specially designed tires, or washing vehicles in a designated area before they leave the site and containing the wash water.
 - (5) Prevent or minimize spills and/or the contamination of storm water runoff from chemical loading/unloading areas. At a minimum, the permittee shall use the following measures or their equivalent:

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(a) use containment curbs at chemical loading/unloading areas to contain spills,

- (b) ensure personnel working in area are familiar with spill prevention and response procedures,
- (c) ensure that any leaks or spills are immediately contained and cleaned up, and
- (d) where practicable, ensure that chemical loading/unloading areas are covered.
- (6) Minimize and contain, to the extent possible, wastewater produced from auxiliary operations such as pump seal leaks, dripping hoses and valves, washdown of equipment and tank cars, pipe and equipment leaks, tank leaks, and solids spills. At a minimum, the facility shall employ the following measures or their equivalent:
 - (a) use protective guards around tanks,
 - (b) use containment curbs,
 - (c) use spill and overflow protection (drip pans or other containment devices),
 - (d) use dry cleanup methods, and
 - (e) visually inspect structural integrity of all above ground tanks, pipelines, pumps, and other related equipment on a weekly bases.
- (7) Ensure separation of waste streams into non-contaminated cooling water, process water, and auxiliary streams (ion exchange regenerants, cooling tower blowdowns, boiler blowdowns, leaks, washings, etc).
- (8) Reduce the potential for an oil spill or a chemical spill.
- h. Procedures for reporting incidence of BMP violations.
- i. Good houskeeping practices.
- j. Internal inspections and recordkeeping.
- k. Security.
- 1. Employee Training.

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4. The permittee must correct or address any comments submitted by the Director, IDEQ, or the Shoshone-Bannock Tribes within 30 days of receipt.

- 5. The BMP Plan shall be retained on site and made available to EPA, IDEQ, and the Shoshone-Bannock Tribes upon request.
- 6. The Plan shall must be reviewed by the permittee annually and updated whenever there is a change in the facility design, construction, operations, or maintenance. Any revisions shall be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes.
- 7. At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release or potential release and/or meeting the specific requirements of this permit, it shall be subject to modification to incorporate revised BMP requirements.
- D. Toxicity Reduction Evaluation (TRE) Requirements.
 - 1. Within 180 days of the effective date of this permit, the permittee shall submit to the Director, IDEQ and the Shoshone-Bannock Tribes a copy of the facility's initial investigation Toxicity Reduction Evaluation (TRE) Work Plan.
 - 2. The TRE Work Plan shall describe the steps the permittee intends to follow if toxicity is detected and shall include, at a minimum, the following steps:
 - a. Information and Data Acquisition. Collect one sample approximately every two weeks over a twelve-week period. Testing shall commence within two weeks of receipt of the sample results that indicated the exceedance of the WET monitoring trigger. These testing requirements may be modified based on consultation with the Director. If none of the additional tests indicates toxicity, then the permittee may return to the normal testing frequency specified in Table II-1.
 - b. Performance Evaluation. Identify the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices.

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c. Toxicity Identification Evaluation. Identify investigation and evaluation techniques or actions that may be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency.

- d. Toxicity Control. Develop actions that will be taken to mitigate the impact of the discharge and to prevent the recurrence of toxicity.
- e. Schedule. Develop a schedule for TRE.

note: The document *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs)*, EPA/600/2-88/070, may be helpful in developing a TRE Work Plan for this facility.

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IV. STANDARD CONDITIONS

A. Compliance Responsibilities.

- 1. Inspection and Entry. The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit,
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit,
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
 - d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.
- 2. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. The permittee shall give advance notice to the Director, IDEQ, and the Shoshone-Bannock Tribes of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- 3. Penalties for Violations of Permit Conditions.
 - a. Civil and Administrative Penalties. Any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be subject to a civil or administrative penalty, not to exceed the maximum amounts authorized by Sections 309(d) and 309(g) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note).

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b. Criminal Penalties.

(1) Negligent Violations. Any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(1) of the Act.

- (2) Knowing Violations. Any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(2) of the Act.
- (3) Knowing Endangerment. Any person who knowingly violates a permit condition implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine and/or imprisonment as specified in Section 309(c)(3) of the Act.
- (4) False Statements. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(4) of the Act.
- 4. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 5. Duty to Mitigate. The permittee shall take all reasonable steps to minimize, or prevent, any discharge, or sludge use or disposal, in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- 6. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed, or used, by the

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permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

- 7. Removed Substances. Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of waste waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.
- 8. Bypass of Treatment Facilities.
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b and c, below.
 - b. Notice.
 - (1) Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. Notice shall include the nature and intent of the bypass.
 - (2) Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under Twenty-four Hour Notice of Noncompliance Reporting (See Section II.C.6.).
 - c. Prohibition of Bypass.
 - (1) Bypass is prohibited and the Director may take enforcement action against a permittee for a bypass, unless:
 - (a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage,
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This

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condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

- (c) The permittee submitted notices as required under paragraph b of this section.
- (2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determined that it will meet the three conditions listed above in paragraph c.(1) of this section.

9. Upset Conditions.

- a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. Necessary upset demonstration conditions. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset,
 - (2) The permitted facility was at the time being properly operated,
 - (3) The permittee submitted notice of the upset as required under Twenty-four Hour Notice of Noncompliance Reporting, and
 - (4) The permittee complied with any remedial measures required under Duty to Mitigate.
- c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

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B. General Requirements.

- 1. Changes in Discharge of Toxic Substances. Notification shall be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes as soon as the permittee knows of, or has reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 μ g/L);
 - (2) Two hundred micrograms per liter (200 μ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μ g/L) for 2,4-dinitropenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with; or
 - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
 - b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 μ g/L);
 - (2) one milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
- 2. Planned Changes. The permittee shall give notice, as soon as possible, to the Director, IDEQ and the Shoshone-Bannock Tribes of any planned physical alterations or additions to the permitted facility which could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.

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3. Anticipated Noncompliance. The permittee shall give advance notice to the Director and IDEQ of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

- 4. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 5. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.
- 6. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- 7. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, IDEQ, and the Shoshone-Bannock Tribes, it shall promptly submit such facts or information.
- 8. Signatory Requirements.
 - a. All applications, reports, or information submitted to the Director shall be signed and certified.
 - b. All permit applications shall be signed by either a principal executive officer or ranking elected official.
 - c. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

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(1) the authorization is made in writing by a person described above and submitted to the Director, and

- (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
- d. Changes to authorization. If an authorization under paragraph c of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph c must be submitted to the Director prior to, or together with, any reports, information, or applications to be signed by an authorized representative.
- e. Certification. Any person signing a document under this section shall make the following certification:
 - "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- 9. Availability or Reports. Except for data determined to be confidential under 40 CFR part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

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10. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act.

- 11. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private infringement of federal, state, or local laws or regulations.
- 12. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- 13. Transfers. This permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date,
 - b. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them, and
 - c. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph b above.
- 14. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the Act.
- 15. Reopener Provision. This permit is subject to modification, revocation and reissuance, or termination at the request of any interested person (including the permittee) or upon EPA initiative. However, permits may only be modified, revoked or reissued, or terminated for the reasons specified in 40 CFR Parts 122.62, 122.63 or 122.64, and 40 CFR Part

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124.5. This includes new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance and includes, but is not limited to, future monitoring results. All requests for permit modification must be addressed to the Director in writing and shall contain facts or reasons supporting the request.

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V. DEFINITIONS

A. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

- B. "Bypass" means the intentional diversion of wastestreams from any portion of a treatment facility.
- C. "Chronic toxicity" measures a sublethal effect (e.g., reduced growth, reproduction) in an effluent or ambient waters compared to that of the control organisms.
- D. "Compliance schedule" means a schedule of remedial measures included in a permit or an enforcement order that contains a sequence of interim requirements (e.g., actions, operations, or milestone events) that lead to compliance with the CWA and regulations.
- E. "Contaminated non-process waste water" means any water that, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct, or waste product by means of: precipitation runoff; accidental spills; accidental leaks caused by the failure of process equipment which is contained or terminated within the shortest reasonable time (not to exceed 24-hours after discovery or when discovery should reasonably have been made, whichever is earliest); discharges from safety showers and related personal safety equipment; and equipment washings for the purpose of safe entry, inspection, and maintenance, provided that all reasonable measures have been taken to prevent, reduce, eliminate, and control to the maximum extent feasible such contact and provided further that all reasonable measures have been taken that will mitigate the effect of such contact once it has occurred.
- F. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
- G. "Daily maximum limit" means the maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the

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day. Where daily maximum limitations are expressed in terms of concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all the measurements taken that day.

- H. "Director" means the Regional Administrator for EPA Region 10 or an authorized representative.
- I. "Effect concentration (EC)" is a point estimate of the toxicant concentration that would cause a given percent reduction (p) in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., USEPA Probit Model).
- J. A "Grab" sample is a single sample or measurement taken at a specific time or over as short a period of time as is feasible.
- K. "Hazardous substance" means any substance, other than oil, which presents an imminent and substantial danger to the public health or welfare (including but not limited to fish, shellfish, wildlife, shorelines and beaches) when discharged in any quantities to waters of the U.S.
- L. "Inhibition concentration (IC)" is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., the EPA Interpolation Model).
- M. "Instantaneous maximum limit" is the maximum allowable concentration of a pollutant determined from the analysis of <u>any</u> discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.
- N. "Lowest observed effect concentration (LOEC)" is the lowest concentration of toxicant to which organisms are exposed in a test, which causes statistically significant adverse effects on the test organisms (i.e., where the values for the observed endpoints are significantly different, statistically, from the control).
- O. "Maximum daily discharge limitation" means the highest allowable "daily discharge".
- P. "Method detection limit (MDL)" is the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero as determined by a specific laboratory method (40 CFR 136).

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Q. "Minimum level (ML)" is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes and processing steps have been followed.

- R. "Noncontact Cooling Water" means water used for colling that does not come into direct contact with any raw material, intermediate product, waste product, or finshed product.
- S. "Non-quantal" means a biological measurement of the test population, such as a growth or reproduction response.
- T. "No observed effect concentration (NOEC)" is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significant different from controls.)
- U. "pH" is a measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration in mg/L. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.
- V. "Pollutant", for the purposes of this permit, is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organisms that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food-chain, could, on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.
- W. "Process wastewater" means any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Process water includes product water, solvent water, transport water, contact cooling water, atmospheric seal water, scrubber water, stormwater, and auxiliary process water. The term process water does not include "contaminated non-process waste water."

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X. "Quantal" means an all or nothing response, such as death, fertilization, germination, or development.

- Y. "Quarter", for the purposes of this permit, is defined as winter (January, February, March), spring (April, May, June), summer (July, August, September), and fall (October, November, December).
- Z. "Static-renewal test" means that test organisms are exposed to a fresh solution of the same concentration of sample every 24-hours or other prescribed interval, either by transferring the test organisms from one test chamber to another or by replacing all or a portion of solution in the test chambers.
- AA. "Suites of tests" means the two or three species used for testing during the permit term.
- AB. A "Toxic pollutant" is a pollutant or combination of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction, or physical deformations to the organism or its offspring. (See list of pollutants at section 307(a)(1) of the CWA.)
- AC. A "Toxicity Reduction Evaluation (TRE)" is a site-specific study conducted in a stepwise process to identify the cause of toxicity, isolate the source of toxicity, evaluate the effectiveness of toxicity control options, and confirm the reduction of toxicity in the effluent.
- AD. A "Toxicity test" is a procedure to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of effect on exposed test organisms of a specific chemical or effluent.
- AE. A "24-hour composite" sample shall mean a time-proportioned mixture of not less than eight discrete aliquots collected from the same location. Each aliquot shall be a grab sample of not less than 100 mL and shall be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.
- AF. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly

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designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

AG. "Whole effluent toxicity" means the total toxic effect of an effluent measured directly with a toxicity test.

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VI. ACRONYMNS

BMP Best Management Practice
BOD Biochemical Oxygen Demand

EC Degrees Celsius

CFR Code of Federal Regulations

cfs Cubic feet per second
COD Chemical Oxygen Demand
CV Coefficient of variation

CWA Clean Water Act

DMR Discharge Monitoring Report

DO Dissolved Oxygen

EPA U.S. Environmental Protection Agency

ESA Endangered Species Act gpm Gallons per minute HUC Hydrologic unit code

IDAPA Idaho Administrative Procedures Act IDEQ Idaho Division of Environmental Quality

IWW Industrial waste water

lbs/day Pounds per day

km kilometer m meter

MDL Method Detection Limit mgd million gallons per day mg/L Milligrams per liter ML Minimum Level

N Nitrogen

ng/L nanograms per liter

NMFS National Marine Fisheries Service NOEC No observed effect concentration

NPDES National Pollutant Discharge Elimination System

NTU Nephelometric turbidity units

OW Office of Water P Phosphorus

P4 Elemental phosphorus pCi/L Picocurries per liter PO₄ Orthophosphate QA Quality assurance

QAPP Quality Assurance Project Plan

RCRA Resource Recovery Conservation Act

RI Remedial investigation

RI/FS Remedial investigation feasibility study

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RWC Receiving water concentration TIN Total inorganic nitrogen Total Maximum Daily Load **TMDL** Total petroleum hydrocarbons TPH Toxics reduction inventory TRI **Total Suspended Solids** TSS **Chronic Toxic Units** TU_c $\mu g/L$ Micrograms per liter

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Service
WAD Weak acid dissociable
WET Whole Effluent Toxicity
WLA Waste Load Allocation

WQBEL Water quality based effluent limit WWTP Waste water treatment plant